CLAIMS

1. A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3, has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) of between 490 and 493 nm and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times TLA4 + 24.5$.

2. The colored glass as claimed in claim 1, characterized in that it has a light transmission (TLA4) of greater than or equal to 55%.

3. The colored glass as claimed in either of claims 1 and 2, characterized in that it has a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times TLA4 + 26.5$.

4. The colored glass as claimed in any one of claims 1 to 3, characterized in that it has a dominant wavelength (λ_D) of less than or equal to 492 nm.

5. The colored glass as claimed in any one of claims 1 to 4, characterized in that it has a dominant wavelength (λ_D) of greater than or equal to 491 nm.

6. The colored glass as claimed in any one of claims 1 to 5, characterized in that it includes, as coloring agents, a compound of at least one of the elements Cr, Ce, Co, Se, V, Ti, Mn.

7. The colored glass as claimed in any one of claims 1 to 6, characterized in that it comprises amongst its coloring agents less than 0.1% by weight of TiO_2.

8. The colored glass as claimed in any one of claims 1 to 7, characterized in that it comprises less than 0.5% by weight of CeO_2.

9. The colored glass as claimed in any one of claims 1 to 8, characterized in that it comprises less than 0.13% by weight of MnO_2.

10. The colored glass as claimed in any one of claims 1 to 9, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.3 - 1.1%
FeO	0.10 - 0.30%
Co	0 - 0.0040%
Cr_2O_3	0 - 0.0500%
V_2O_5	0 - 0.0500%

and has the following optical properties:

55% < TLA4 < 85%

36% < TE4 < 60%

P < 12%.

11. The colored glass as claimed in any one of claims 1 to 10, characterized in that it has a light transmission (TLA4) of greater than or equal to 70%.

12. The colored glass as claimed in claim 10, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.3 - 0.7%
FeO	0.10 - 0.20%
Co	0 - 0.0020%

and has the following optical properties:

72% < TLA4 < 85%

49% < TE4 < 60%

3% < P < 9%.

13. The colored glass as claimed in claim 12, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.4 - 0.6%
FeO	0.11 - 0.16%
Co	0 - 0.0015%

and has the following optical properties:

74% < TLA4 < 80%

51% < TE4 < 58%

3% < P < 7%

$\lambda_D \leq 492$ nm.

14. The colored glass as claimed in claim 10, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.4 - 0.8%
FeO	0.16 - 0.23%
Co	0 - 0.0030%

and has the following optical properties:

70% < TLA4 < 77%

39% < TE4 < 50%

4% < P < 10%.

15. The colored glass as claimed in claim 14, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.55 - 0.75%
FeO	0.16 - 0.23%
Co	0 - 0.0020%

and has the following optical properties:

70% < TLA4 < 74%

41% < TE4 < 48%

6% < P < 9%

$\lambda_D \leq 492$ nm.

16. The colored glass as claimed in claim 10, characterized in that it has a light transmission (TLA4) of less than 70%.

17. The colored glass as claimed in claim 16, characterized in that it comprises less than 0.01%, preferably less than 0.0050%, by weight of V_2O_5 and less than 0.0020%, preferably less than 0.0015%, by weight of Cr_2O_3.

18. The colored glass as claimed in either of claims 16 and 17, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.6 - 1.1%
FeO	0.20 - 0.30%
Co	0 - 0.0040%

and has the following optical properties:

55% < TLA4 < 69%

30% < TE4 < 47%

6% < P < 12%.

19. The colored glass as claimed in claim 18, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.75 - 0.95%
FeO	0.22 - 0.28%
Co	0 - 0.0030%

and has the following optical properties:

63% < TLA4 < 69%

36% < TE4 < 45%

7% < P < 11%

$\lambda_D \leq 492$ nm.

20. The colored glass as claimed in any one of claims 1 to 19, characterized in that it comprises less than 1.0% by weight of Fe_2O_3.

21. The colored glass as claimed in any one of claims 1 to 20, characterized in that it forms a motor-vehicle window.

IN THE CLAIMS

1-21 (Canceled)

22. (New) A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3, has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) of between 491 and 493 nm, including the endpoints of that range, and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times TLA4 + 24.5$ and comprises amongst its coloring agents less than 0.1% by weight of TiO_2.

23. (New) The colored glass as claimed in Claim 22 and further including at least one of the following features (A) through (D)

(A) a light transmission (TLA4) of greater than or equal to 55%;

(B) a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times TLA4 + 26.5$;

(C) as coloring agents, a compound of at least one of the elements Cr, Ce, Co, Se, V, Ti, Mn; and

(D) it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.3 – 1.1%
FeO	0.10 - 0.30%
Co	0 – 0.0040%
Cr_2O_3	0 – 0.0500%
V_2O_5	0 – 0.0500%

and has the following optical properties:

$55\% < TLA4 < 85\%$

$36\% < TE4 < 60\%$

$P < 12\%$.

24. (New) The colored glass as claimed in Claim 23 and further including at least two of the features (A) through (D).

25. (New) The colored glass as claimed in Claim 23 and further including all of the features (A) through (D).

26. (New) The colored glass as claimed in Claim 22 and further including at least one of the following features (E) and (F):

(E) it comprises less than 0.5% by weight of CeO_2;

(F) it comprises less than 0.13% by weight of MnO_2.

27. (New) The colored glass as claimed in Claim 22, characterized in that it has a light transmission (TLA4) of greater than or equal to 70%.

28. (New) The colored glass as claimed in Claim 23 wherein it further comprises one of the following features (G) through (J):

(G) the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.3 – 0.7%
FeO	0.10 - 0.20%
Co	0 – 0.0020%

and has the following optical properties:

$72\% < TLA4 < 85\%$

$49\% < TE4 < 60\%$

$3\% < P < 9\%$;

(H) the following percentages by weight of coloring agents, the total amount of iron being

expressed in the form of Fe_2O_3:

Fe_2O_3	0.4 – 0.6%
FeO	0.11 - 0.16%
Co	0 – 0.0015%

and has the following optical properties:

$74\% < TLA4 < 80\%$

$51\% < TE4 < 58\%$

$3\% < P < 7\%$

$\lambda_D \leq 492$ nm;

(I) the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.4 – 0.8%
FeO	0.16 - 0.23%
Co	0 – 0.0030%

and has the following optical properties:

$70\% < TLA4 < 77\%$

$39\% < TE4 < 50\%$

$4\% < P < 10\%$; or

(J) the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.55 – 0.75%
FeO	0.16 - 0.23%
Co	0 – 0.0020%

and has the following optical properties:

$70\% < TLA4 < 74\%$

$41\% < TE4 < 48\%$

$6\% < P < 9\%$

$\lambda_D \leq 492$ nm.

29. (New) The colored glass as claimed in claim 22, characterized in that it has a light transmission (TLA4) of less than 70%.

30. (New) The colored glass as claimed in claim 22, further characterized by one of the following (K) through (M):

(K) it comprises less than 0.01%, preferably less than 0.0050%, by weight of V_2O_5 and less than 0.0020%, preferably less than 0.0015%, by weight of Cr_2O_3;

(L) it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.6 – 1.1%
FeO	0.20 - 0.30%
Co	0 – 0.0040%

and has the following optical properties:

$55\% < TLA4 < 69\%$

$30\% < TE4 < 47\%$

$6\% < P < 12\%$;

(M) it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.75 – 0.95%
FeO	0.22 - 0.28%
Co	0 – 0.0030%

and has the following optical properties:

$63\% < TLA4 < 69\%$

$36\% < TE4 < 45\%$

$7\% < P < 11\%$

$\lambda_D \leq 492$ nm.

31. (New) The colored glass as claimed in Claims 22, characterized in that it forms a motor-vehicle window.

32. (New) The colored glass as claimed in Claim 22 further characterized by a dominant wavelength (λ_D) of less than or equal to 492 nm.

33. (New) The colored glass as claimed in Claim 22 further characterized in that it comprises less than 1.0% by weight of Fe_2O_3.

34. (New) A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3, has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) of between 490 and 493 nm and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times TLA4 + 24$;

further comprising the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.3 – 1.1%
FeO	0.10 - 0.30%
Co	0 – 0.0040%
Cr_2O_3	0 – 0.0500%
V_2O_5	0 – 0.0500%

and has the following optical properties:

55% < TLA4 < 85%

36% < TE4 < 60%

P < 12%; and

the colored glass has a light transmission (TLA4) of less than 70%.

35. (New) A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3, has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) of between 490 and 493 nm and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship P > -0.3 x TLA4 + 24.5; and further comprising the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.3 – 0.7%
FeO	0.10 - 0.20%
Co	0 – 0.0020%

and having the following optical properties:

72% < TLA4 < 85%

49% < TE4 < 60%

3% < P < 9%.

36. (New) A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3, has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) of between 490 and 493 nm and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship P > -0.3 x TLA4 + 24.5; and further comprising the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3:

Fe_2O_3	0.4 – 0.8%

FeO 0.16 - 0.23%

Co 0 – 0.0030%

and having the following optical properties:

70% < TLA4 < 77%

39% < TE4 < 50%

4% < P < 10%.

37. (New) A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3, has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) between 491 and 493 nm, including the endpoints of that range, and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship P > -0.3 x TLA4 + 24.5, while TLA4 is greater or equal to 65.7, and comprises its coloring agents less than 0.1% by weight of TiO_2.

38. (New) A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3, has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) between 491 and 493 nm, including the endpoints of that range, and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship P > -0.3 x TLA4 + 24.5, while TLA4 is greater or equal to 72.07, and comprises amongst its coloring agents less than 0.1% by weight of TiO_2.